



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,319	03/09/2001	Daniel G. Anderson	0492611-0392 (MIT-9128)	5731
7590	09/07/2004		EXAMINER	
SHIBUYA, MARK LANCE				
ART UNIT		PAPER NUMBER		
1639				

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/803,319	ANDERSON ET AL.
Examiner	Art Unit	
Mark L. Shibuya	1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 15 July 2004.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) 7,12,13,21-56 and 58 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-6,8-11,14-20 and 57 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-58 are pending. Claims 1-6, 8-11, 14-20, and 57 are rejected. Claims 7, 12, 13, 21-56 and 58 are withdrawn from consideration as drawn to a non-elected invention.

### ***Claim Rejections - 35 USC § 112***

#### *Claim Rejections - 35 USC § 112, Second Paragraph*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6, 8-11, 14-20, and 57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is necessitated by applicant's amendments to the claims, filed 7/15/2004.

The term "relatively smooth" in claims 1 and 2 is a relative term which renders the claim indefinite. The term "relatively smooth" is not defined by the claim or the specification, the specification does not provide a standard for ascertaining the requisite degree of smoothness, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "relatively smooth", in describing the surface of a base, is vague.

***Claim Rejections - 35 USC § 112******Claim Rejections - 35 USC § 112, First Paragraph***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-6, 8-11, 14-20, and 57 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a *New Matter Rejection*. This rejection is necessitated by applicant's amendments to the claims, filed 7/15/2004. This rejection is necessitated by applicant's amendments to the claims, filed 7/15/2004.

Claims have been amended to recite the limitation "substantially smooth"; there is no support in the specification for this limitation. Applicant has not pointed to where, in the specification as filed, support for this limitation is to be found. The specification does not describe the surface of a base as being smooth, and does not disclose how substantial smoothness of the base is part of the claimed invention.

***Claim Rejections - 35 USC § 103******Maintained Claim Rejection***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-6, 8-11, 14-20, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltzman et al. (J. Biomed. Mat. Res., Vol. 25, pp. 741-759, 1991) in view of Kapur et al., (US 6,548,263) and Shultz et al. (US 5,985,356). This rejection is maintained for the reasons of record, as set forth in the previous Office action mailed 11/21/2003.

***Response to Arguments***

Applicant's arguments filed 5/24/2004 and applicant's amendments to the claims, filed 7/15/2004, have been fully considered but they are not persuasive.

The examiner respectfully submits that applicant's traversal of the obviousness rejection appears to be that not all elements are taught by the references. Applicant, in the Reply filed 5/24/04 at p. 7, para 2, argues that the reference of Kapur "does not remedy the failure of Saltzman to disclose an array." Applicant argues that Kapur teaches glass wafers coated with aminosilane that form monolayers through self-assembly; so that the reference of Kapur does not meet the requirement of claim 1, that the polymer is non-covalently bound to the surface; and Kapur does not meet the requirement of claim 2 that the polymer elements are not monolayers. Furthermore, applicant argues that the combination of Schultz and Saltzman fails to suggest a plurality of polymeric elements bound to a substantially smooth cytophobic surface.

As applicant observes in the Reply filed 5/24/04 at p. 6, para 2, the reference of Saltzman et al., at p. 743 teaches coating glass coverslips with thin films of polymers by spin-coating. Furthermore, Saltzman et al. at p. 743, para 3 – p. 744, para 2, teach securing these coverslips into machined blocks of solid polycarbonate sheets to form 6-well plates, *i.e.*, an array. The spin-coated thin films of polymers that coat the coverslips of Saltzman are not, absent evidence to the contrary, monolayers. Also, these thin films are not covalently bound to the surface. As to the limitation that the polymeric elements are bound to a substantially smooth cytophobic surface, it is respectfully noted that the specification at p. 5, lines 9 – 28, contemplates an embodiment of the claimed invention wherein the base can be glass, plastic, metal or ceramic and wherein the base may be a modified light microscope slide or coverslip. Thus the reference of Saltzman et al. teaches, absent evidence to the contrary, a substantially smooth cytophobic surfaces in an array to which polymeric elements are non-covalently bound.

### ***Conclusion***

5. Claims 1-6, 8-11, 14-20, and 57 are rejected. Claims 7, 12, 13, 21-56 and 58 are withdrawn from consideration.
  
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shibuya whose telephone number is (571) 272-0806. The examiner can normally be reached on M-F, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PADMASHRI PONNALURI  
PRIMARY EXAMINER

Mark L. Shibuya  
Examiner  
Art Unit 1639

ms